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March 20, 2003

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# Logistics

Accountability and Control of  
Materiel at the Warner Robins  
Air Logistics Center  
(D-2003-064)

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Department of Defense  
Office of the Inspector General

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*Quality*

*Integrity*

*Accountability*

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### **Acronyms**

AFMC	Air Force Materiel Command
SSC	Shop Service Center
TI	Technology and Industrial Support
WR-ALC	Warner Robins Air Logistics Center
WSSC	Weapon System Support Center



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March 20, 2003

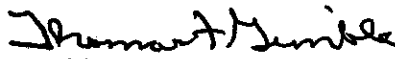
MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE  
(FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Report on Accountability and Control of Materiel at the Warner Robins Air Logistics Center (Report No. D-2003-064)

We are providing this report for your information and use. This report is the sixth in a series being issued by the Office of the Inspector General of the Department of Defense that discusses accountability and control of materiel at maintenance depots. We considered management comments on a draft of this report when preparing the final report.

Comments on the draft of this report conformed to the requirements of DoD Directive 7650.3 and left no unresolved issues. Therefore, no additional comments are required.

We appreciate the courtesies extended to the staff. Questions on the audit should be directed to Mr. Dennis E. Payne at (703) 604-8907 (DSN 664-8907) or Mr. Keith A. Yancey at (703) 604-8774 (DSN 664-8774). See Appendix B for the report distribution. The team members are listed inside the back cover.

  
David K. Steensma  
Deputy Assistant Inspector General  
for Auditing

# Office of the Inspector General of the Department of Defense

Report No. D-2003-064

(Project No. D2002LH-0094)

March 20, 2003

## Accountability and Control of Materiel at the Warner Robins Air Logistics Center

### Executive Summary

**Who Should Read This Report and Why?** DoD personnel who are involved in materiel management of items used for repair and overhaul processes should read this report. The report discusses compliance with policies and procedures used to account for and control materiel at Warner Robins Air Logistics Center.

**Background.** This is the sixth in a series of reports the Inspector General of the Department of Defense is issuing that discuss accountability and control of materiel at DoD maintenance depots. The Joint Group on Depot Maintenance estimated the DoD maintenance expenditures to be about \$15.3 billion for FY 2002. The Air Force portion of that amount was about \$6.4 billion.

Depot maintenance facilities need effective inventory control systems to ensure that an adequate supply of materiel is on hand to maintain efficient levels of operation and to meet the demands of customers. An effective system is also important to disclose defective and obsolete goods; prevent loss through damage, pilferage, or waste; and ensure the accuracy of inventory records. Through inventory control, materiel not needed for current requirements at a depot can be identified and made available for redistribution to meet other known requirements.

For this report, we reviewed inventory records from six maintenance divisions at Warner Robins Air Logistics Center. The divisions had 36,304 records representing inventory on hand valued at about \$93.1 million. We used a stratified random sample to select 424 records for review at those 6 maintenance divisions. Additionally, we used a judgmental sample to select for review floating spares\* inventory and materiel located in maintenance storerooms and on shop floors.

**Results.** Warner Robins Air Logistics Center did not effectively manage or control materiel stored in local maintenance shops. The following conditions were found.

- Maintenance inventory records, when matched to a physical count, had a projected count error rate of 22.4 percent. The error rate overstatements are valued at an estimated \$6.6 million and error rate understatements are valued at an estimated \$4 million. Also, records for the Avionics Division's floating spares inventory, when matched to a physical count, had an actual count error rate of 25.7 percent, resulting in overstatements of about \$5.3 million and understatements of \$1.2 million.

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\* Floating spares are items authorized for retention in support of automatic test equipment.

- Materiel stored in maintenance storerooms and on shop floors exceeded requirements. The materiel was valued at about \$14.1 million.
- Materiel on the shop floor and in the floating spares storage area of the Avionics Division was not recorded on accountable records. The materiel was valued at about \$16.1 million.

As a result, Warner Robins Air Logistics Center had large and inaccurate inventories that were difficult to manage and included materiel either in excess to known requirements or unaccounted for, valued at about \$30.2 million. Consequently, Warner Robins Air Logistics Center could have about \$30.2 million in potential monetary benefits. Further, the excess, unrecorded materiel was not available to item managers to satisfy valid requirements and, lacking visibility, allowed materiel to be subject to loss, obsolescence, and theft. Implementing the recommendations in this report would allow Warner Robins Air Logistics Center to improve the management of materiel and would correct material management control weaknesses identified by this audit. (See the Finding section for the detailed recommendations.)

**Management Comments and Audit Response.** The Air Force concurred with all recommendations in this report and stated it has issued guidance regarding the management of maintenance materiel that includes guidance for accountability and control of materiel, providing management reports on inventory, conducting annual inventories, and performing periodic reviews. Also, the Air Force accepted the potential monetary benefit estimate of \$30.2 million. Further, the Air Force stated that it would review the need to include management of maintenance materiel as an assessable unit in the management control program. See the Finding section for a discussion of management comments and the Management Comments section of the report for the complete text of the comments. We commend the Air Force for its comprehensive actions and cooperation to improve the accountability and control of materiel at Warner Robins Air Logistics Center.

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## Background

This is the sixth in a series of reports resulting from our audit of accountability and control of materiel at DoD maintenance depots. The Joint Group on Depot Maintenance estimated the DoD maintenance expenditures to be about \$15.3 billion for FY 2002. The Air Force portion of that amount was about \$6.4 billion for operation of three depot maintenance facilities (Air Logistics Centers). A significant portion of the Air Force depot maintenance budget is for purchasing materiel used in repair and overhaul processes at depot maintenance facilities.

**Warner Robins Air Logistics Center.** Warner Robins Air Logistics Center (WR-ALC), located in Warner Robins, Georgia, is one of three Air Force Air Logistics Centers. The WR-ALC mission includes weapon system management, acquisition oversight, calibration services, and integrated logistics support of the various Air Force aircrafts and helicopters. Similar support is provided for electronic warfare equipment, avionics, general-purpose computers, missiles, aircraft propellers, and vehicles of various types. The WR-ALC Maintenance Directorate has overall responsibility of depot-level maintenance for the maintenance divisions, which include six aircraft divisions, an Avionics Division, and a Technology and Industrial Support (TI) Division. For this report, we assessed the C-5, C-130, C-141, and F-15 divisions (referred to collectively as the Aircrafts Division in this report); the Avionics Division; and the TI Division.

Shop Service Centers (SSCs) and Weapon System Support Centers (WSSCs) are forward supply organizations located in the maintenance divisions' shop work areas. The SSC/WSSC are the standard materiel and production support function for depot maintenance. The SSC/WSSC provide all supply-related services to the depot maintenance customer, which include stocking, storing, and issuing aircraft and repair parts. The SSC primarily supports exchangeable items and engine shops; the WSSC supports aircraft shops. As the single supply function, the SSC/WSSC are responsible to the maintenance customer for all aspects of supply support and are responsible and accountable for managing stocks. Further, the SSC/WSSC are responsible for scheduling and completing inventories of all assets at least on an annual basis.

**Materiel Classification.** Materiel used at maintenance depots is generally classified as consumables or reparables. Consumables are supplies consumed during use, such as repair parts and fabrication materiel. Reparables are secondary items or subassemblies that can be restored to a serviceable condition through depot-level maintenance. Reparables are normally exchangeable on a one-for-one basis. For each reparable issued to maintenance for repair or overhaul, a serviceable reparable should be returned to the supply system.

**Accounting For and Controlling Materiel.** Inventory control is defined as the control of materiel and goods in process by accounting and physical methods. Accounting control involves proper recording and reporting of inventories. Physical control involves a physical movement of inventories and consists of



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proper safeguards for receiving, storing, handling, and issuing. The purpose of a physical inventory is to determine the condition and quantity of items by physically inspecting and counting the items.

Inventory control is important because materiel not needed for current requirements at a depot can be identified and made available for redistribution to meet other known requirements. Each depot maintenance facility is required to record on-hand inventory balances on shop stock records. Shop stocks are demand-supported repair parts or consumable items that are stored within the depot maintenance facility to support workloads. For accounting purposes, shop stocks are considered consumed; however, depot maintenance facilities are required to maintain shop stock records to show on-hand inventory balances. Depot maintenance facilities need effective inventory control systems to ensure that an adequate supply of materiel is on hand to maintain efficient levels of operation and to meet the demands of customers. An effective system is also important to disclose defective and obsolete goods; prevent loss through damage, pilferage, or waste; and ensure the accuracy of inventory records.

**Management Oversight.** The Air Force Materiel Command (AFMC) is the office of primary responsibility for the three Air Logistics Centers and provides overall guidance for managing materiel. Air Force Manual 23-110, “U.S. Air Force Supply Manual,” January 1, 2002, and AFMC Instruction 21-130, “Equipment Maintenance Materiel Control,” August 2000, provide policy and procedural guidance for management and control of materiel at the Air Logistics Centers.

**Storage of Materiel.** The WR-ALC Maintenance Directorate is responsible for depot-level maintenance. WR-ALC storage areas (for regular inventory, courtesy storage and floating stock and spares, and “awaiting parts” inventory) are located in the Aircrafts, Avionics, and TI Divisions. All the materiel is in support of the repair and manufacturing of weapon systems at WR-ALC.

**D035K Wholesale and Retail Receiving and Shipping System.** The D035K Wholesale and Retail and Shipping System (D035K) is the primary data system that the Air Force uses to provide materiel support for depot-level operations. It is used to process receipts from vendors and other suppliers and materiel turned in from base organizations, such as the maintenance divisions. D035K also directs the movement of materiel into and out of storage and keeps track of where the materiel is located. Additionally, it computes requirements and processes retail customer requests and related transactions in support of maintenance. D035K is the official accountability record for materiel stored at maintenance facilities.

## Objectives

Our overall audit objective was to evaluate the effectiveness of policies and procedures used to account for and control materiel at WR-ALC. We also

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<sup>1</sup> Reparable items for which parts are not currently available.

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reviewed the management control program as it related to the overall objective. See Appendix A for a discussion of the scope and methodology, our review of the management control program, and prior coverage.

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## Management of Materiel at Warner Robins Air Logistics Center

WR-ALC did not effectively manage or control materiel stored in local maintenance shops. The following conditions were found.

- Maintenance inventory records, when matched to a physical count, had a projected count error rate of 22.4 percent. The error rate overstatements are valued at an estimated \$6.6 million and error rate understatements are valued at an estimated \$4 million. Also, records for the Avionics Division's floating spares inventory, when matched to a physical count, had an actual count error rate of 25.7 percent, resulting in overstatements of about \$5.3 million and understatements of about \$1.2 million.<sup>2</sup>
- Materiel stored in maintenance storerooms and on shop floors exceeded requirements. The materiel was valued at about \$14.1 million.<sup>3</sup>
- Materiel on the shop floor and in the floating spares storage area of the Avionics Division was not recorded on accountable records. The materiel was valued at about \$16.1 million.<sup>4</sup>

Those conditions occurred because complete annual physical inventories and periodic reviews of materiel in inventory were not always performed. Further, AFMC policy did not require WR-ALC to submit reports on inventories of maintenance materiel for management review. As a result, WR-ALC had large and inaccurate inventories that were difficult to manage and included materiel either in excess to known requirements or unaccounted for, valued at about \$30.2 million. Consequently, WR-ALC could have about \$30.2 million in potential monetary benefits. Further, the excess, unrecorded materiel was not available to item managers to satisfy valid requirements and, lacking visibility, allowed materiel to be subject to loss, obsolescence, and theft.

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<sup>2</sup> A judgmental sample was used to select floating spares inventory for review. The results presented are limited to the sample reviewed and cannot be generalized to the universe.

<sup>3</sup> A judgmental sample was used to select materiel stored in maintenance storerooms and on shop floor for review. The results presented are limited to the sample reviewed and cannot be generalized to the universe.

<sup>4</sup> A judgmental sample was used to select materiel located on floor of maintenance shops and in floating spares storage areas for review. The results presented are limited to the sample reviewed and cannot be generalized to the universe.

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## Guidance

**DoD Guidance.** DoD Regulation 4140.1-R, “DoD Materiel Management Regulation,” May 1998, provides policies for DoD Components regarding management of materiel. The regulation states that the DoD Component that has physical custody of materiel is responsible to care for and safeguard the materiel and shall maintain quantitative balance records by individual storage location. Also, the DoD Components shall conduct annual physical inventories and shall take appropriate actions to ensure that the on-hand quantity and total item property records agree.

**Air Force Guidance.** Air Force Manual 23-110 states that inventories of all properties held by Air Force organizations will be conducted. The purpose of inventory is to validate the accounts and correct errors. The process of taking inventory involves the counting of physical property, comparing physical counts to record balances, and adjusting or correcting records so that record balances and quantity of property on-hand are identical. Materiel used by the Maintenance Directorate in the fabrication, manufacture, and overhaul processes is primarily stored in the SSC/WSSC. Storage areas in the SSC/WSSC include courtesy storage, floating spares, “awaiting parts,” and bench stock.

AFMC Instruction 21-130 establishes policies and procedures for depot-level maintenance materiel control, support, and management of assets within the maintenance divisions at the Air Logistics Centers. The instruction states that courtesy storage is a temporary holding area, provided as a courtesy for maintenance-owned materiel. It is not to be used as a collection and holding area for materiel that maintenance cannot use in a timely manner. As a minimum, an inventory of all courtesy storage locations shall take place every 6 months to identify items that have not been consumed within the previous 6-month time period. If during the 6-month review materiel is found with no consumption history in the last 6 months, and there is no known immediate requirement, it should be turned in to supply whether or not credit can be obtained.

**Floating Stocks and Spares.** Floating stocks are items authorized for retention to support maintenance production by acting as replacement components for end items whose subassemblies have repair times that exceed the repair time of the end item. Floating spares are items authorized for retention in support of automatic test equipment. According to Air Force guidance, an annual inventory of floating stock and spares will be conducted by the SSC. The location and use of the assets must be accounted for and tracked on a floating stock and spares detail in the D035K system. The Air Force guidance also states an inventory is necessary to ensure the authorization form, AFMC Form 100, “Floating Stock and Spares Requirement and Justification,” reflects the minimum quantity of floating stock assets needed to maintain end item production schedules. AFMC Form 100 is the authorization form for maintaining floating stocks and spares. The use of floating stocks and spares will be kept to a minimum. In the annual review of floating stocks, AFMC Form 100 is to be annotated to indicate whether requirements for each item inventoried have changed. AFMC Form 100s requiring change will be forwarded to the floating stock and spares monitor for processing.

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**Bench Stocks.** Bench stocks are a group of standard items used repetitively in predictable time frames and are located in or close to the work area. Bench stocks are consumed in the maintenance process, but cannot be identified to a specific product. Bench stocks include consumable items such as bolts, nuts, screws, solder, tape, and wire. Bench stock authorizations are to be reviewed quarterly by SSC/WSSC personnel for accuracy. Excess bench stock will be turned in for disposition.

## Audit Universe and Sample Selection

We used D035K data as of May 6, 2002, to identify an audit universe of 36,304 records for the 6 WR-ALC maintenance divisions. The audit universe was valued at \$93.1 million. We used a stratified random sample to select 424 records at those 6 WR-ALC maintenance divisions. Table 1 shows the number of records in the sample by maintenance division.

**Table 1. Number of Records**

<u>Maintenance Division</u>	<u>Sample</u>
Aircrafts*	98
Avionics	101
TI	<u>225</u>
<b>Total</b>	<b>424</b>

\*The Aircrafts Division sample includes 36 C-5 records, 7 C-130 records, 23 C-141 records, 19 F-15 records, 9 “other” records, and 4 “census” records that were intentionally selected (see Appendix A for details).

We compared the on-hand balances shown on the D035K inventory records with the results of our physical count of materiel in the maintenance divisions.

## Inventory Records

WR-ALC did not effectively manage or control materiel stored in local maintenance shops. Maintenance inventory records, when matched to a physical count, had a projected count error rate of 22.4 percent. The error rate overstatements are valued at an estimated \$6.6 million and error rate understatements are valued at an estimated \$4 million. Also, floating spares inventory records, when matched to a physical count, had an actual count error

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rate of 25.7 percent. That error rate resulted in overstatements valued at about \$5.3 million and understatements valued at about \$1.2 million.<sup>5</sup>

**Maintenance Inventory Records.** WR-ALC maintained inaccurate inventory records for materiel in D035K. Maintenance inventory records had error counts of on-hand quantities when compared to a physical count of materiel stored in the six maintenance divisions. We performed a physical count of selected materiel stored in the six maintenance divisions. From our sample, we projected at the 90 percent confidence level that 8,138 (22.4 percent) of the 36,304 records had count errors differing from the physical counts. The lower and upper limits of our estimate is 6,492 (17.9 percent) and 9,784 (27 percent). The projected count errors involve overstatements valued at an estimated \$6.6 million and errors understatements are valued at an estimated \$4 million.

**Location of Materiel.** Location of materiel was not always shown on the D035K inventory records and, at times, was not always valid. The location of materiel was not shown for 2,357 of the 36,304 records listed in the D035K (see the tables in Appendix A, for a summary of records with no location by division). Further, we could not find all the materiel for a physical count because the location was imprecise. For example, “DOOR-4” and “AWP169UPSTAIR1” were used as identifiers for where materiel was located. Because those materiel locations could not be found, we were not able to validate the on-hand quantity of materiel shown as being stored there.

**Floating Spares Inventory Records.** On April 1, 2002, the floating spares inventory record showed that 2,150 lines of materiel, valued at about \$61 million, were stored as floating spares. Those items were located in the Floating Spares Room of the Avionics Division. We judgmentally selected 1,181 lines of materiel, valued at about \$20.2 million, for our physical inventory. We compared the on-hand balance shown on the floating spares inventory records with our physical count of items. The inventory records had count errors in 303 (25.7 percent) of the 1,181 lines of materiel. The 303 actual count errors consisted of 268 overstatements, valued at about \$5.3 million, and 35 understatements, valued at about \$1.2 million.

**AFMC Form 100.** The Avionics Division did not review AFMC Form 100s to determine whether requirements were validated to ensure that the minimum number of floating spares were on-hand. We obtained the AFMC Form 100 for 908 of the 1,181 floating spares we inventoried. The forms showed that the shops did not validate requirements as required. There were no indications that any of the forms were validated on an annual basis. The AFMC Form 100s showed original dates as far back as 1985. The floating spares monitor indicated that for FY 2002, no AFMC Form 100s had been received from the shops to change floating spares authorization levels.

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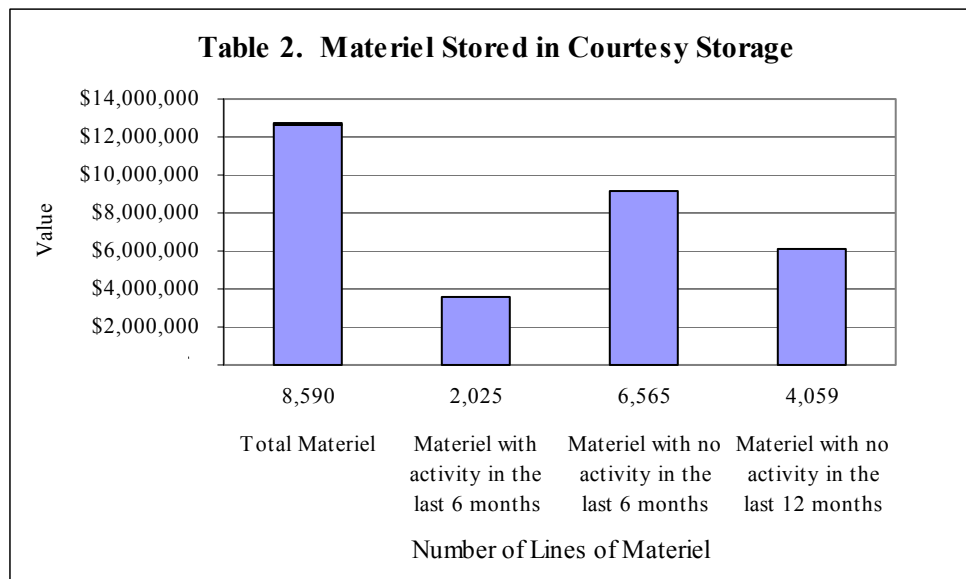
<sup>5</sup> A judgmental sample was used to select floating spares inventory for review. The results presented are limited to the sample reviewed and cannot be generalized to the universe.

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## Storage of Maintenance Materiel

Materiel stored in maintenance storerooms and on shop floors exceeded requirements. The materiel was valued at about \$14.1 million.<sup>6</sup> The excess materiel was located throughout the Aircrafts, Avionics, and TI Divisions.

**Courtesy Storage.** Materiel stored in the courtesy storage areas of the Aircrafts and TI Divisions exceeded requirements. The courtesy storage inventory listing showed that 8,590 lines of materiel, valued at about \$12.7 million, were on-hand as of June 2002. Of the 8,590 lines of materiel on-hand, about 2,025, valued at about \$3.6 million, had consumption in the last 6 months. The remaining 6,565 lines of materiel, valued at about \$9.1 million, had not had any consumption within the previous 6 months. Further, 4,059 of the 6,565 lines of materiel, valued at about \$6.1 million, had not had any consumption for more than 12 months. Also, WR-ALC had not identified any future requirements for the lines of materiel with no consumption beyond 6 months and, therefore, should identify whether future requirements do exist. Table 2 shows total lines of materiel stored in courtesy storage and the demand for those lines.



**Storage Warehouse and Shop Floors.** Excess materiel was stored in a storage warehouse and on the shop floors of the Avionics Division. We judgmentally selected 213 items for review and found each to be excess. Unit prices were available for only 102 of the items, which were valued at about \$1.4 million.

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<sup>6</sup> A judgmental sample was used to select materiel stored in maintenance storerooms and on shop floors for review. The results presented are limited to the sample reviewed and cannot be generalized to the universe.

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WR-ALC personnel stated that the materiel was to be used in test equipment that was stored in a warehouse. However, the test equipment was considered obsolete. The materiel supporting the equipment should have been turned in to supply.

**Floating Stock Storage.** Excess materiel was stored in the floating stock storage area of the Avionics Division. In our review of 1,181 lines of floating stock materiel, 48 had on-hand balances that exceeded the authorized quantity. The 48 lines of materiel had a value of about \$1.6 million. Further, 79 unserviceable reparable items, valued at about \$2.0 million,<sup>7</sup> were stored in the floating stock storage area. Those items were excess and should have been turned in. Additionally, 60 of those 79 items were shown on the property books as serviceable. Tags on the materiel showed last inspection on some of the items as far back as 1995. Maintenance shops are responsible for ensuring that unserviceable reparables are turned in to supply.

**Bench Stock.** WR-ALC had bench stock on-hand that was excess. The bench stock held was no longer needed, exceeded authorized quantities, and had dates of last activity greater than 5 years. The excess bench stock was stored and managed by the Low Altitude Navigation and Targeting Infrared for Night shop in the Avionics Division. The bench stock inventory listing identified 1,509 lines of materiel and included the authorized quantity, item description, and date of last activity. Unit prices were not always shown on the listing. Of 1,509 lines of materiel reviewed, 1,082 (72 percent) had no dates of activity within the last 5 years. Further, we judgmentally selected 50 lines of materiel for a physical inventory. Inventory for the 50 lines was valued at \$99,741. Of the 50 lines of materiel, 34 had on-hand balances that exceeded the authorized quantity and 48 had no dates of activity within the last 90 days. For example, National Stock Number 5962-10-350-4140SX (Chip) had a unit price of \$311.73 and had an authorized quantity of one. Our physical count showed that a quantity of 55 for that item was on-hand. Also, the date of last activity for the item was August 14, 1999.

## Accountable Records

Materiel found on the shop floor and in the floating spares storage area of the Avionics Division was not recorded on accountable records. The materiel was valued at about \$16.1 million.<sup>8</sup>

**Shop Floor.** We judgmentally selected for physical inventory 340 items found on maintenance shop floors in the Avionics Division. The materiel counted was labeled as “Mockup” and was considered to be floating stock. The materiel was

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<sup>7</sup> Value is based either on the D035K and D043A databases or Federal Logistics Information Record listings; actual value cannot be determined until WR-ALC considers repair costs or turn in for credit.

<sup>8</sup> A judgmental sample was used to select materiel located on the floor of maintenance shops and in storage areas for review. The results presented are limited to the sample reviewed and cannot be generalized to the universe.



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not identified on any accountable records and was not needed to satisfy any ongoing requirements. Shop personnel stated they maintained the mockup materiel in the maintenance areas for possible future use. The value of the materiel identified as mockup and not on accountable records totaled about \$14.5 million. Examples of unrecorded materiel are shown in Table 3.

**Table 3. Unrecorded Materiel in the Avionics Division**  
(as of August 2002)

<u>National Stock Number</u>	<u>Description</u>	<u>Quantity</u>	<u>Unit Price</u>
5841-01-158-2818FX	Radar Processor	1	\$900,416
1280-01-159-6188	Scanner Assembly	1	\$880,348
5841-01-346-7942FX	Radar Set Subassembly	2	\$583,008

**Floating Spares.** We judgmentally selected for physical inventory 1,181 lines of materiel stored in the floating spares storage area of the Avionics Division. We compared our physical count with the lines of materiel shown on the floating spares inventory records. The inventory records did not include 231 of the 1,181 lines of materiel. Further, we were able to identify unit prices for only 151 of the lines. Inventory for those 151 lines of materiel was valued at about \$1.6 million.

## Physical Inventories

Count errors occurred, materiel went unrecorded, and excess materiel accumulated because personnel in the Avionics and TI Divisions did not perform complete annual physical inventories as required. The Aircrafts Division did complete an annual physical inventory as required. In the Avionics Division, personnel responsible for physical inventories performed a physical inventory of the items shown on the D035K listing. However, materiel such as the mockups was not included in the physical count. Personnel in the TI Division stated they perform a physical inventory weekly. However, the inventory official did not retain any documents to support that statement. The inventory official did provide results of a physical inventory performed over a 1-week period ending August 24, 2002. Those results showed an error count rate of about 37 percent. A WR-ALC official attributed various reorganizations within the Maintenance Directorate as reasons why physical inventories were not performed. During our visit, shop personnel in the Avionics Division began conducting a physical inventory, identifying and accounting for all materiel.

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## Periodic Reviews

Periodic reviews of materiel on-hand were not always performed. Personnel responsible for semi-annual reviews of courtesy storage did not perform the reviews as required and quarterly reviews of bench stock had not occurred.

**Semi-Annual Reviews.** WR-ALC personnel did not perform semi-annual reviews of courtesy storage materiel as AFMC Instruction 21-130 requires. The instruction requires semi-annual review of materiel in courtesy storage. The review includes consumption history and determining whether a known immediate requirement exists. Planners in the Aircrafts (two of the four planners) and TI Divisions did not always complete semi-annual reviews of courtesy storage inventories to validate whether materiel had consumption history in the last 6 months or whether the materiel had immediate requirements. WR-ALC personnel, including the planners, were aware of the requirement to perform the semi-annual reviews and provided detailed listings to planners for completion. However, the planners did not complete the assessments.

**Quarterly Reviews.** Quarterly reviews were not performed to identify idle or unused bench stock in the Low Altitude Navigation and Targeting Infrared for Night shop of the Avionics Division because SSC/WSSC personnel had not initiated the requirement to perform the reviews. According to shop personnel, the bench stock was excess and attributed the excess to consolidation of bench stocks from other shops and no recent activity of the bench stock inventory.

## WR-ALC Turn-In of Materiel

In June 2001, the Avionics Division began the process of turning in excess materiel to the SSC/WSSC. At the end of July 2002, the Avionics Directorate turned in about \$53.2 million of materiel. The remaining materiel was being reviewed for turn-in.

## Potential Monetary Benefits

The audit identified excess and unrecorded materiel valued at about \$30.2 million. Therefore, WR-ALC could have about \$30.2 million of potential monetary benefits. The exact amount cannot be determined until WR-ALC identifies inventory excess to prevailing requirements and determines whether the excess materiel can be used to satisfy other known requirements.

## Conclusion

WR-ALC did not comply with DoD and AFMC guidance for managing materiel stored in the maintenance divisions and AFMC did not require WR-ALC to

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submit reports on inventories of maintenance materiel for management review. As a result, WR-ALC had large and inaccurate inventories that were difficult to manage and included materiel in excess to known requirements, valued at about \$14.1 million, and materiel that was unaccounted for, valued at about \$16.1 million. Further, AFMC did not fully provide oversight of maintenance materiel at WR-ALC. The lack of accountability and control of materiel at WR-ALC is an ongoing problem. The Inspector General of the Department of the Defense reported similar conditions in 1995. This audit revealed that the problem continues to exist. We believe effective management of maintenance materiel requires, as a minimum, that WR-ALC perform annual physical inventories and conduct periodic reviews of courtesy storage and bench stock. Further, we believe that AFMC should take an active role in monitoring the management of materiel at WR-ALC.

## **Recommendations, Management Comments, and Audit Response**

**We recommend that the Commander, Warner Robins Air Logistics Center immediately:**

**1. Comply with Air Force guidance regarding the management of maintenance materiel stored at the Air Logistics Center.**

**2. Issue guidance regarding materiel management reports for management review.**

**Management Comments.** The Air Force concurred with both recommendations, stating that the WR-ALC Director of Maintenance issued a policy directive to ensure proper supply discipline and use of materiel metrics in monthly materiel reviews.

**3. Perform an annual physical inventory of all materiel recorded in the D035K Wholesale and Retail and Shipping System that is the responsibility of the Maintenance Directorate, reconcile the results, and turn in excess materiel to supply.**

**Management Comments.** The Air Force concurred and stated that it provided instructions to the Shop Service Centers and the Weapon System Support Centers to ensure consistent completion of all inventories and that all inventories will be completed by September 30, 2003.

**4. Perform a physical count of all materiel located on the maintenance shop floors and in storerooms, reconcile the physical count to the D035K Wholesale and Retail and Shipping System, and turn in excess materiel to supply.**

**Management Comments.** The Air Force concurred and stated that the effort will be completed by December 30, 2003.

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**5. Update or complete Air Force Materiel Command Form 100 for each line of floating stock and spares inventory. Submit to the floating stock and spares monitor for processing those forms in which the authorization level changes.**

**Management Comments.** The Air Force concurred, stating that a complete inventory is underway to identify excess items. The inventory will include assessing the AFMC Form 100 for each item on the D035K inventory record.

**6. Perform semi-annual reviews of materiel stored in the courtesy storage area and turn in excess materiel to supply.**

**Management Comments.** The Air Force concurred and stated that local procedures have been established to review materiel held every 6 months and that documentation of the reviews will be retained for a minimum of 1 year.

**7. Perform quarterly reviews of bench stock materiel in the Low Altitude Navigation and Targeting Infrared for Night shop of the Avionics Division and turn in excess materiel to supply.**

**Management Comments.** The Air Force concurred, stating that maintenance personnel are performing quarterly reviews of inactive bench stock and will turn in excess items.

**Audit Response.** The Air Force comments were responsive to the intent of the recommendations. We commend the Air Force for its comprehensive actions and cooperation to improve the accountability and control of materiel at WR-ALC.

**Management Comments on the Potential Monetary Benefits.** The Air Force accepted the potential monetary benefit of \$30.2 million but noted that the audit did not make it clear whether we were claiming that the Air Force can recoup that amount through deferred procurements of items or sale of excess materiel. The Air Force also stated that funding for Air Force materiel should not be reduced by that amount unless a clear link can be shown between the erroneous reporting of assets and opportunities to avoid expenditures.

**Audit Response.** We identified the \$30.2 million in potential monetary benefits as funds that could be put to better use. The funds could be used more efficiently by WR-ALC if it implements the recommendations in this report. Visibility of materiel, not currently on inventory records, and the identification of excess items results in improved inventory control. Through inventory control, materiel not needed for current requirements can be identified and made available for redistribution to meet other known requirements.

**Management Comments on the Management Control Program.** The Air Force stated that it needed to review whether the management of maintenance materiel should be an assessable unit under the management control program. The Air Force stated it will advise the Office of the Inspector General of the Department of Defense of its determination by March 21, 2003.

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## Appendix A. Scope and Methodology

We performed this audit at the WR-ALC at Robins Air Force Base, located in Warner Robins, Georgia. We contacted personnel at WR-ALC. We concentrated on accountability and control of materiel. D035K inventory records as of May 6, 2002, showed that materiel valued at \$93.1 million was stored at WR-ALC. We reviewed DoD and Air Force regulations regarding policies, responsibilities, and procedures for accounting for and controlling materiel at Air Force Air Logistics Centers. To determine whether materiel was accurately accounted for and controlled on inventory records, we physically inventoried materiel stored in the Aircrafts, Avionics, and TI Divisions. We also determined whether annual inventories were performed and whether management reports were prepared. We statistically selected for review 424 records (98 records in various aircraft divisions, 101 records in the Avionics Division, and 225 records in the TI Division) from a universe of 36,304 records for review. We used judgmental samples to select for review lines of materiel in floating spares inventory, materiel stored in maintenance storerooms, and materiel on shop floors. We determined unit prices by using WR-ALC inventory records (D035K), the Air Force Master Item Identification Database (D043A), and the Federal Logistics Information Record.

We performed this audit from March through November 2002 in accordance with generally accepted government audit standards.

**Sample Design.** We used a stratified random sample design and in each stratum selected simple random samples of records reported as of May 2002 for Aircrafts, Avionics, and TI Divisions. Table A-1 shows the number of records for each stratum.

**Table A-1. Population and Sampling**

<u>Inventory</u>	<u>Number of Records</u>	
	<u>Universe</u>	<u>Sample</u>
Regular <sup>1</sup>		
Aircrafts Division (Stratum 1)	7,187	60
Avionics Division (Stratum 2)	5,456	60
TI Division (Stratum 3)	11,617	120
Courtesy Storage		
Aircrafts Division (Stratum 4)	7,946	30
Avionics Division (Stratum 4)	0	0
TI Division (Stratum 5)	573	30
Awaiting Parts		
Aircrafts Division (Stratum 6)	0	0
Avionics Division (Stratum 6)	1,032	30
TI Division (Stratum 7)	132	30
Records with No Location <sup>2</sup> (Stratum 8 and 9)	2,357	60
Census <sup>3</sup> (Stratum 10)	<u>4</u>	<u>4</u>
<b>Total</b>	<b>36,304</b>	<b>424</b>

<sup>1</sup>During the initial preparation to identify the audit universe, WR-ALC indicated that nine other items were not stored in the regular inventory of the Avionics or TI Divisions, so we included them in the Aircrafts Division. As a result, those items became part of our random sample for the Aircrafts Division. Upon validating our statistical sample, it was found that those items were stored in the TI Division. The items were retained in the appropriate Aircrafts Division stratum.

<sup>2</sup>These are records where the warehouse location field in the D035K was empty.

<sup>3</sup>The Census stratum comprises four records that were intentionally selected for review but were not included when projecting our results.

Tables A-2 and A-3 show the sample breakdown of the 2,357 records listed in D035K as not having a location.

<b>Table A-2. Sample Breakdown of Records With No Location, by Division</b>		
<u>Division</u>	<u>Number of Records</u>	
	<u>Universe</u>	<u>Sample</u>
Aircrafts Division	92	4
Avionics Division	172	11
TI Division	<u>2,093</u>	<u>45</u>
<b>Total</b>	<b>2,357</b>	<b>60</b>

<b>Table A-3. Sample Breakdown of Records With No Location, by Storage Area</b>		
<u>Storage Area</u>	<u>Number of Records</u>	
	<u>Universe</u>	<u>Sample</u>
Regular Storage (Stratum 8)	2,162	30
Other (Courtesy and Awaiting Parts) (Stratum 9)	<u>195</u>	<u>30</u>
<b>Total</b>	<b>2,357</b>	<b>60</b>

**Sample Results.** Using the stratified sample design, we calculated statistical projections of the count errors of materiel in storage locations and the projected values of the overstated and understated inventories. Based on the sample results, using a 90 percent confidence level, we projected that between 6,492 and 9,784 of the 36,304 records had materiel count errors at WR-ALC. The point estimate 8,138 was the mid point of the range of the values. We further projected that the overstated value of the materiel in error was between \$3.72 million and \$9.57 million. The point estimate \$6.64 million was the mid point of the range of values. Also, the understated value of the materiel in error was between \$2.31 million and \$5.62 million. The point estimate of \$3.97 million was the mid point of the range of values.

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**Use of Computer-Processed Data.** We relied on computer-processed data from D035K for determining the accuracy of inventory records. Our review of system controls and the results of data tests showed an error rate that cast doubt on the data's validity. However, we reviewed the data in context with other available evidence and concluded that the opinion, conclusions, and recommendations in this report are valid.

**Use of Technical Assistance.** Statisticians from the Quantitative Methods Division, Office of the Inspector General of the Department of Defense provided assistance in designing a random statistical sampling plan for performing physical inventories and in evaluating the results of the samples.

**High-Risk Area.** The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the Defense Inventory Management high-risk area.

## Management Control Program Review

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, and DoD Instruction 5010.40, "Management Control (MC) Program Procedures," August 28, 1996, require DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

**Scope of the Review of the Management Control Program.** We reviewed the adequacy of management controls at WR-ALC regarding accountability and excess materiel. We also reviewed the results of management's self-evaluation of those controls.

**Adequacy of Management Controls.** We identified material management control weaknesses for WR-ALC as defined by DoD Instruction 5010.40. WR-ALC management controls for managing depot maintenance materiel were not adequate to ensure that materiel was accounted for and did not exceed requirements. Further, annual physical inventories were not performed as required and reviews to determine whether materiel was needed were not performed, especially for materiel in regular inventories, courtesy storage, floating stock and spares, "awaiting parts" inventory, and bench stock. All recommendations, if implemented, will improve management of materiel. A copy of the report will be provided to the senior official responsible for management controls in the Air Force.

**Adequacy of Management's Self-Evaluation.** WR-ALC officials did not identify management of maintenance materiel as an assessable unit and, therefore, did not identify or report the material management control weaknesses identified by the audit.



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## **Prior Coverage**

During the last 5 years, the Inspector General of the Department of Defense (IG DoD) has issued five reports that discuss management of repair parts for maintenance. The Air Force Audit Agency has also issued 3 reports that discuss accountability and control of materiel. Final, unrestricted IG DoD reports can be accessed at <http://www.dodig.osd.mil/audit/reports>.

## **IG DoD**

IG DoD Report No. D-2003-0057, “Accountability and Control of Materiel at the Naval Air Depot, Jacksonville, March 5, 2003

IG DoD Report No. D-2003-033, “Accountability and Control of Materiel at the Naval Air Depot, North Island,” December 6, 2002

IG DoD Report No. D-2002-091, “Accountability and Control of Materiel at the Corpus Christi Army Depot,” May 21, 2002

IG DoD Report No. D-2002-003, “Accountability and Control of Materiel at the Tobyhanna Army Depot,” October 4, 2001

IG DoD Report No. D-2001-186, “Accountability and Control of Materiel at the Tobyhanna Army Depot – Stockage of Communications-Electronics Materiel,” September 21, 2001

## **Air Force**

Air Force Audit Agency, Audit Report No. F2003-0007-FCR000, “F-15 Programmed Depot Maintenance Materiel Support,” December 19, 2002

Air Force Audit Agency, Audit Report No. DR001034, “FX 2065 Special Inventory Account, Defense Logistics Agency, Robins Air Force Base, Georgia,” August 21, 2001

Air Force Audit Agency, Audit Report No. DR001033, “Aircraft Materiel Management, C-5 Production Area,” Warner Robins Air Logistics Center, August 17, 2001

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## **Appendix B. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition, Technology, and Logistics  
Deputy Under Secretary of Defense (Logistics and Materiel Readiness)  
Assistant Deputy Under Secretary of Defense (Maintenance Policy, Programs, and Resources)  
Under Secretary of Defense (Comptroller)/Chief Financial Officer  
Deputy Chief Financial Officer  
Deputy Comptroller (Program/Budget)

### **Joint Staff**

Director, Joint Staff

### **Department of the Army**

Auditor General, Department of the Army

### **Department of the Navy**

Naval Inspector General  
Auditor General, Department of the Navy

### **Department of the Air Force**

Assistant Secretary of the Air Force (Financial Management and Comptroller)  
Auditor General, Department of the Air Force  
Commander, Air Force Materiel Command  
Commander, Warner Robins Air Logistics Center

### **Other Defense Organizations**

Director, Defense Logistics Agency

### **Non-Defense Federal Organizations**

Office of Management and Budget  
General Accounting Office

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## **Congressional Committees and Subcommittees, Chairman and Ranking Minority Member**

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Government Reform  
House Subcommittee on Government Efficiency, Financial Management, and Intergovernmental Relations, Committee on Government Reform  
House Subcommittee on National Security, Veterans Affairs, and International Relations, Committee on Government Reform  
House Subcommittee on Technology and Procurement Policy, Committee on Government Reform

# Department of the Air Force Comments



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON, DC

03 MAR 2003

MEMORANDUM FOR DIRECTOR, AUDIT FOLLOWUP, OAIG-AUDITING, OFFICE OF  
THE INSPECTOR GENERAL, DEPT OF DEFENSE

FROM: HQ USAF/IL

SUBJECT: DOD IG Draft Report, Accountability and Control of Material at Warner Robins Air  
Logistics Center (Project Code D2002LH-0094)

This is in reply to your memorandum requesting that the Assistant Secretary of the Air  
Force Financial Management and Comptroller) provide Air Force comments on subject report.

The Air Force concurs with all recommendations of this audit. We accept the potential  
monetary benefit estimate of \$30.3M. Our detailed responses are attached. Based on actions  
already taken, we recommend that recommendations 1, 2, 6, and 7 be closed.

Since actions on other recommendations will take approximately one year to complete  
due to volume of workload, we will follow up with HQ AFMC/LG for a status report in Aug 03.  
We will also ask HQ AFMC to review material accountability procedures at our other Air  
Logistics Centers.

  
MICHAEL E. ZETTLER  
Lieutenant General, USAF  
DCS/Installations & Logistics

Attachment:  
Detailed Audit Response

cc:  
HQ AFMC/LGI/FMPM  
C/AFMPC

**Air Force Response to DOD IG Draft Audit Report D2002LH-0094, Accountability and Control of Material at Warner Robins Air Logistics Center**

**Recommendation 1. Comply with Air Force Guidance regarding the management of maintenance material stored at the Air Logistics Center.**

Response: Concur. The WR-ALC Director of Maintenance issued MA Policy Directive #03-04, Depot Maintenance Material Management, Accountability and Control, to ensure proper supply discipline now and in the future. Recommend this item be closed.

**Recommendation 2. Issue guidance regarding material management reports for management review.**

Response: Concur. Guidance was issued WR-ALC in MA Policy Directive #03-04 regarding material management reports for management reviews. Material metrics and posture will continue to be a part of monthly material reviews with division chiefs in order that WR-ALC/MA obtains material discipline. Recommend this item be closed.

**Recommendation 3. Perform an annual physical inventory of all material recorded in the D035K Wholesale and Retail and Shipping System that is the responsibility of the Maintenance Directorate, reconcile the results, and turn in excess material to supply.**

Response: Concur. WR-ALC/MAM provided instructions to each of the Weapon System Support Centers (WSSC) and Shop Service Centers (SSC) as of 3 Jan 03 to ensure consistency, compliance and timely completion of all required inventories in accordance with established guidance. A detailed schedule and inventory methodology is being compiled that will ensure accomplishment of all required inventories not later than 30 Sep 03. Further, the chief of WR-ALC/MAM will provide continuing oversight to ensure shops are progressing in their accomplishment of scheduled annual inventories and the maintenance of necessary documentation. Estimated completion date: 30 Sep 03.

**Recommendation 4. Perform a physical count of all material located on the maintenance shop floors and in storerooms, reconcile the physical inventory count to the D035K Wholesale and Retail and Shipping System, and turn in excess material to supply.**

Response: Concur. Numerous factors have contributed to the accumulation of the excess material within the WR-ALC maintenance shop areas. Steps to identify, research and determine disposition of this excess have been initiated. Estimated completion date: 30 Dec 03.

**Recommendation 5. Update or complete Air Force Material Command Form 100 for each line of floating stock and spares inventory. Submit to the floating stock and spares monitor for processing those forms in which the authorization level changes.**

Response: Concur. Complete inventory of WR-ALC/MA floating stock is currently being conducted to identify excess items for turn in to supply. This includes the requirement for AFMC Form 100, Floating Stock and Spares Requirement and Justification, for each item on the D035K inventory record. Estimated completion date: 30 Dec 03.

**Recommendation 6: Perform semi-annual reviews of material stored in courtesy storage area and turn in excess material to supply.**

Response: Concur. Some areas at WR-ALC performed the required review but failed to maintain proper documentation. Local procedures have been established at WR-ALC to review amounts and kinds of material being held every 6 months, as a minimum. If during that 6 month review, material is found with no consumption history and there are no known immediate requirements, material shall be turned in to supply whether or not credit can be obtained. Documentation will be maintained for a minimum of 1 year. Recommend this item be closed.

**Recommendation 7. Perform quarterly reviews of bench stock material in the Low Altitude Navigation and Targeting Infrared for Night shop of the Avionics Division and turn in excess material to supply.**

Response: Concur. WR-ALC/MAM personnel are performing quarterly reviews of inactive bench stock and will continue to identify items with no usage are turned in to supply. Active bench stock is currently being managed under SAIC contract. Recommend this item be closed.

**Potential Monetary Benefit \$30.3M**

We accept the PMB estimate of \$30.3M but wish to note that the information provided in the audit did not make it clear whether the DoD IG auditor is claiming that the Air Force can recoup these costs through deferred procurements of the same items or sale of excess material. Funding for AF material should not be reduced by this amount unless a clear link can be shown between the erroneous reporting of assets and opportunities to avoid expenditures.

**Management Control Program: Should management of maintenance material be an assessable unit under Management Control Program? (AF phrasing of the issue.)**

We need to review this issue further before making a final decision on whether it should be an assessable unit and will advise DoD IG of our determination by separate memo. Estimated completion date for our response: 21 Mar 03.

Point of Contact: Bobby Buckles, AF/ILGP, 695-9798, 13 Feb 03

## **Team Members**

The Readiness and Logistics Support Directorate, Office of the Assistant Inspector General for Auditing of the Department of Defense prepared this report. Personnel of the Office of the Inspector General of the Department of Defense who contributed to the report are listed below.

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